

Date: Sunday, 10/05/2009 7:59:04 AM
 User: Melanie Fauteux

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services Drawing Name : SADDLE FITTING
 Job Number : 47826
 Estimate Number : 13924
 P.O. Number :
 This Issue : 10/05/2009 S.O. No. :
 Prsht Rev. : NC
 First Issue : // Type : MACHINED PARTS
 Previous Run :
 Written By :
 Checked & Approved By : MF 09-05-10
 Comment : Est Rev:A New Issue 09-05-09 JLM Verified By:EC

Part Number : D38831
 Drawing Number : D3883 PREL
 Project Number : N/A
 Drawing Revision : PREL
 Material :
 Due Date : 17/05/2009

Qty: 2 Um: Each

POSITIVE
RECALL

Additional Product

PRELIMINARY ISSUE

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	D6101015	Saddle Billet
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Comment: Qty.: 1.0000 Each(s)/Unit. Total: 2.0000 Each(s)

7075-T7351 9.450 X6.250

Make from D6101-015 billet for D3883-1/-2

Ensure that grain is along 9.450 " length

Batch No: 47459

JL 09/05/27

2.0	HAAS1	HAAS CNC VERTICAL MACHINING #1
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Comment: HAAS CNC VERTICAL MACHINING #1

Program Batch No. 47876 Double check by: SP

1-Machine Step No 1 per Folio FA815 and inspect per attached Dimension Sheets

2-Machine Step No 2 per Folio FA815 and inspect per attached Dimension Sheets

3-Machine Step No 3 per Folio FA815 and inspect per attached Dimension Sheets

4-Deburr

JL 09/05/27

3.0	MILLING CONV.	CONVENTIONAL MILLING MACHINE
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Comment: CONVENTIONAL MILLING MACHINE

Machine keyway as per dwg D3883

JL 09/05/27

4.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
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Comment: INSPECT PARTS AS THEY COME OFF MACHINE

JL 09/05/27

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Sunday, 10/05/2009 7:59:04 AM
User: Melanie Fauteux

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SADDLE FITTING

Job Number: 47826

Part Number: D38831

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

QC8



weight.
51-1.0795
52-1.0780
Total = 2.1570

SECOND CHECK

ENGINEERING
APPROVAL



Comment: SECOND CHECK

09.06.09 88 09/05/30

6.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Acid etch and Alodine as per QSI 005 4.1

FD 09/06/09 (2)

7.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

M111472

START TIME:

2:00pm

OVEN TEMPERATURE:

320°F

FINISH TIME:

2:30pm

09-06-09 (2)

8.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT

Give to Jason-M



BK 09-06-9 (2)

9.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location:

MF Assy D19-646-213/12

10.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE



Job Completion



POSITIVE RECALL

EFFECTIVE

RELEASED

AUTH

DATE

MF 09-06-23

ENG USE ONLY 09.09.09

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order: 47826
Description: outboard saddle		Part Number: D3883-1
Inspection Dwg: D3883	Rev: A	Page 1 of 2

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
.500	$\pm .010$	.500				
1.250	$\pm .005$	1.250				
6.000	$\pm .010$	6.000				
2.500	$\pm .005$	2.500				
.500	$\pm .010$	.501				
1.250	$\pm .010$	1.250				
Ø.313	$\pm .005$	.315				
.028X45°	$\pm .010$ $\pm .5°$	.028X45°				
1.250	$\pm .005$	1.250				
Ø.188	$\pm .010$	.188				
.165 to .140		.150				
Ø.50	$\pm .036$	.500				
.728	$\pm .010$	.728				
2.855	$\pm .030$	2.868				
.250	$\pm .010$	.254				
.110 to .140		.138				
.250	$\pm .010$	.248				
1.265	$\pm .020$	1.268				
Ø.316	$\pm .005$	.319				
1.750	$\pm .005$	1.750				
1.000	$\pm .010$	1.006				
.270	$\pm .010$	.275				
1.221	$\pm .010$	1.224				

Measured by: JL	Audited by: SS	Prototype Approval: [Signature]
Date: 09/05/27	Date: 09/05/30	Date: 09.06.01

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/JLM	

DART AEROSPACE LTD		Work Order: 47826
Description:		Part Number: D3883-1
Inspection Dwg:	Rev:	Page 2 of 2

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
.625	$\pm .010$	.625				
.220	$\pm .005$	.219				
.760	$\pm .005$	.760				
.245	$\pm .010$	.245				
3.900	$\pm .005$	3.900				
1.438	$\pm .005$	1.438				
2.875	$\pm .005$	2.875				
.801		.801				
.896	$\pm .010$	.895				
.853	$\pm .010$	.853				
2.250	$\pm .005$	2.250				
1.125	$\pm .005$	1.125				
.257	$\pm .005$	.259				
.125	$\pm .010$	.130				
.250	$\pm .010$	.253				
.140 to .165		.151				
2.000	$\pm .020$	2.002				
.05 x 45°	$\pm .010 \pm .50$	.055 x 45°				

Measured by: <i>[Signature]</i>	Audited by: <i>[Signature]</i>	Prototype Approval: <i>[Signature]</i>
Date: 09/05/30	Date: 09/05/30	Date: 05.06.01

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/JLM	

DART AEROSPACE LTD		Work Order:	47826
Description: OUTBOARD SADDLE		Part Number:	D3883-1
Inspection Dwg: D3883 Rev: A DSK: Rev:		Page 1 of 1	

FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article ☐ Prototype

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	5
A	.886	.906		.895	.896			
B	2.870	2.880		2.875	2.876			
C	1.433	1.453		1.437	1.439			
D	3.895	3.905		3.898	3.898			
E	.891	.811	→	.820	.820			
F	.115	.135		.134	.134			
G	2.257	2.262		.260	.260			
H	1.120	1.130		1.126	1.126			
I	2.245	2.255		2.250	2.250			
J	.843	.863		.851	.850			
K	.290	.260		.252	.251			
L	.140	.165		.155	.155			
M	2.000	2.020		2.007	2.000			
N	.040X45°	.060X45°		.050X45°	.050X45°			
O	5.990	6.010		6.001	6.001			
P	.490	.510		.500	.500			
Q	1.220	1.286		1.245	1.245			
R	R.280	R.340		R.312	R.312			
S	R.620	R.680		R.650	R.650			
T	.115	.135		.125				
U	0.313	0.318		0.317	0.317			
V	.020X45°	.040X45°		.027X45°	.026X45°			
W	1.245	1.255		1.250	1.250			
X	2.495	2.505		2.500	2.498			
Y	.490	.510		.500	.500			
Z								
AA	1.245	1.255		1.250	1.250			
AB	7°	8°		7°	7°			
AC	.140	.165		.155	.150			
AD	1.265	1.285		1.267	1.266			
AE	R.430	R.530		R.500	R.500			
AF	R.178	R.198		R.188	R.188			
AG	.240	.260		.247	.248			
AH	.110	.140	→	.150	.150			
Accept/Reject								

Measured by: <i>SL</i>	Date: 09/05/20
Audited by: <i>LP</i>	Date: 09/09/10
Prototype Approval:	Date: 09.06.01

Rev	Date	Change	Revised by	Approved
A	02.12.12	New Issue	KJ/RF	
B	07.11.08	Reformat	KJ/JLM	

DART AEROSPACE LTD		Work Order:	47826
Description: OUTBOARD SADDLE		Part Number:	D3883-1
Inspection Dwg: D3883 Rev: A DSK: Rev:		Page 1 of 1	

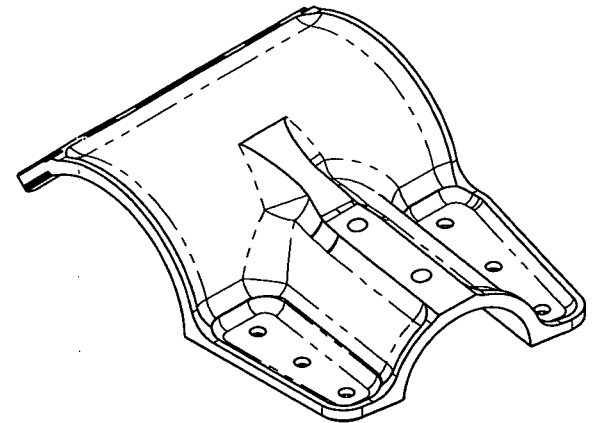
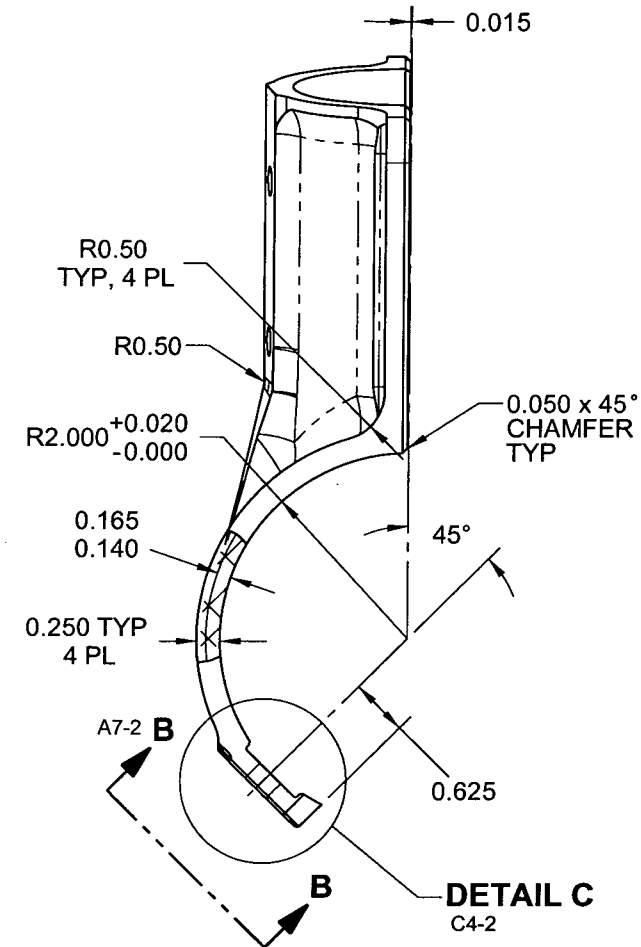
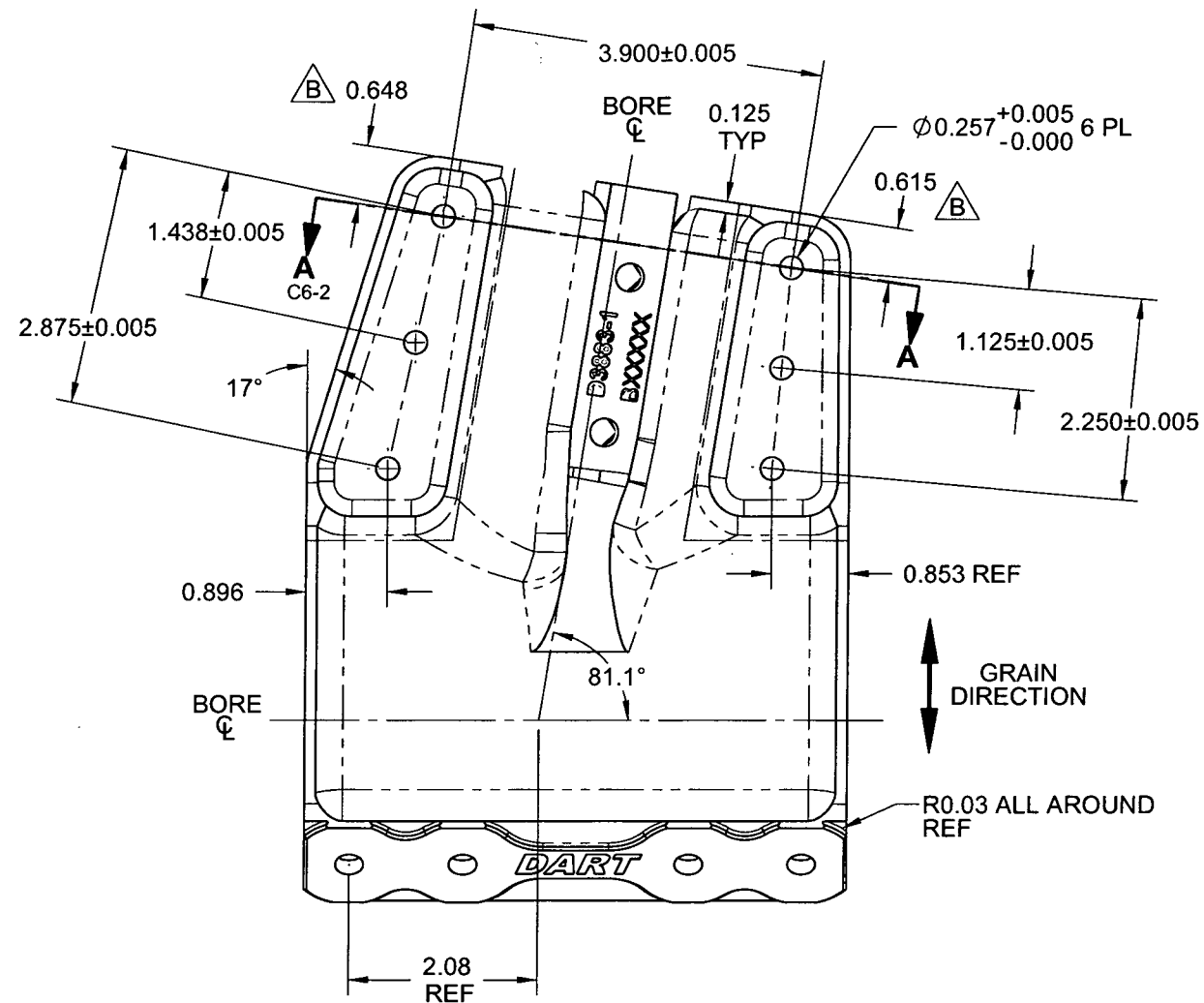
FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article ☐ Prototype

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	5
A	.240	.260		.257	.256			
B	.740	.760	→	.760	.760			
C	2.825	2.885		2.871	2.871			
D	1.211	1.231		1.227	1.227			
E	R.470	R.530		R.500	R.500			
F	R.015	R.035						
G	.015X45°	.035X45°		.025X45°	.025X45°			
H	.235	.255		.246	.246			
I	.760	.765		.760	.760			
J	.215	.220		.220	.220			
K	.050	.070		.060	.059			
L	.260	.280		.276	.276			
M	.615	.635		.626	.624			
N	R.470	R.530		R.500	R.500			
O	R.470	R.530		R.500	R.500			
P	Ø.316	Ø.321		Ø.321	Ø.321			
Q	Ø.990	1.010		1.005	1.004			
R	1.750	1.755		1.750	1.750			
S								
T								
U								
V								
W								
X								
Y								
Z								
AA								
AB								
AC								
AD								
AE								
AF								
AG								
AH								
Accept/Reject								

Measured by: <i>JP</i>	Date: 09/05/30
Audited by: <i>JP</i>	Date: 09/08/10
Prototype Approval:	Date: 09.06.01

Rev	Date	Change	Revised by	Approved
A	02.12.12	New Issue	KJ/RF	
B	07.11.08	Reformat	KJ/JLM	



PRELIMINARY
ISSUE 09.06.05

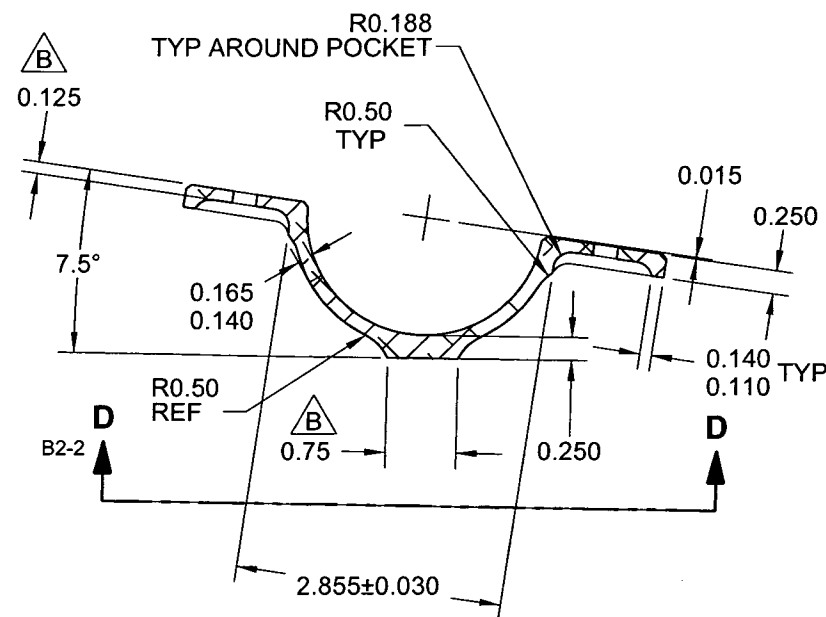
PRELIMINARY

**D3883-1 SADDLE, OUTBOARD LH (SHOWN)
D3883-2 SADDLE, OUTBOARD RH (OPPOSITE)**

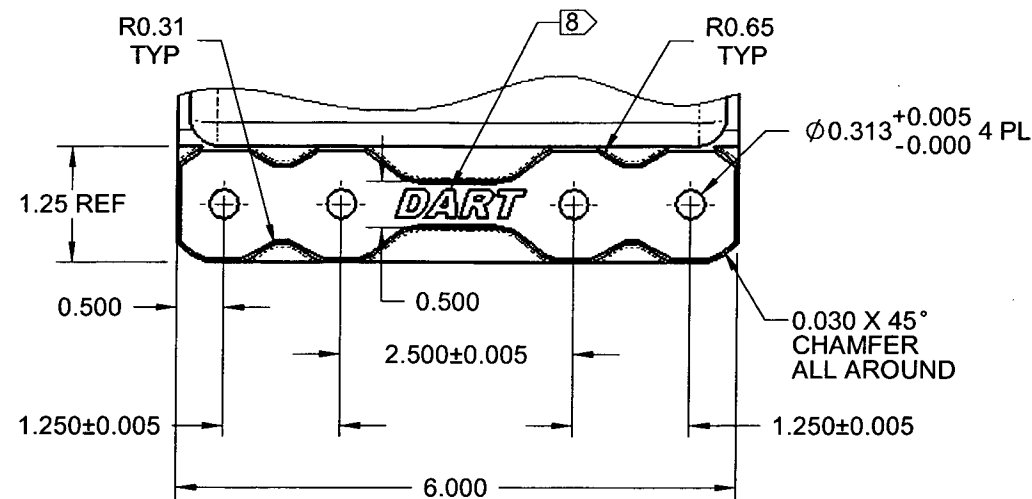
NOTES:

- 1) MATERIAL: 7075-T7351 ALUMINUM PER AMS-QQ-A-250/12, OR QQ-A-250/12 OR ASTM B209 (REF DART SPEC. D6101-015)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 POWDER COAT GLOSS "WHITE" (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: ENGRAVE PART AND BATCH NUMBER IN THIS AREA TO MAX. DEPTH OF 0.010 WITH A MIN. TOOL RAD OF R0.010
- 7) WEIGHT: 1.00 lbs
- 8) ENGRAVE DART LOGO TO MAX DEPTH OF 0.015 WITH MIN RAD 0.250

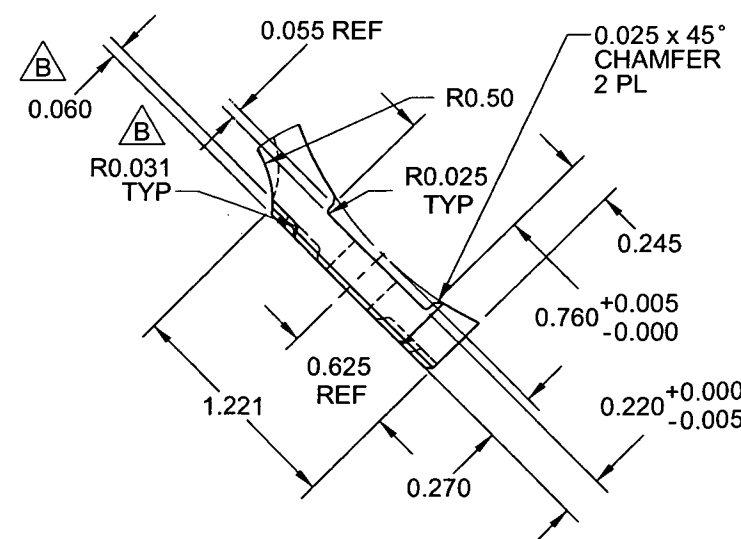
B	D6101-015 WAS D6102-015. ZN A7-1; ADD 0.648. ZN D7-1; ADD 0.615. ZN D6-1; ADD 0.125. ZN D7-2; ADD 0.060 & R0.31. ZN B5-2; ADD 0.060. ZN B5-2; 0.75 WAS 0.728. ZN C7-2	RF	09.06.05
A	NEW ISSUE	RF	09.04.23
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
DRAWN	RF		
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		D3883	SHEET 1 OF 2
APPROVED		TITLE	SCALE
DE APPR.		OUTBOARD SADDLE	NTS
DATE	09.06.05	COPYRIGHT © 2009 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	



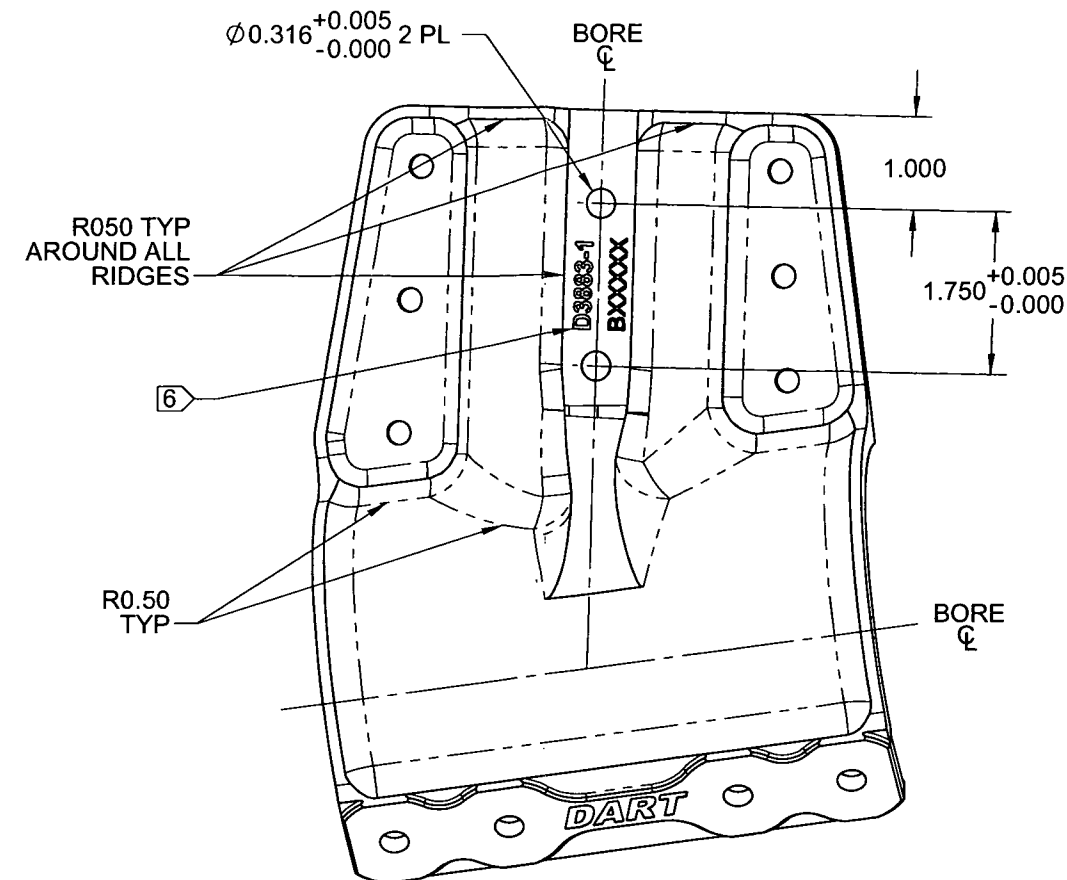
SECTION A-A C7-1



VIEW B-B B4-1
(ROTATED FOR CLARITY)



DETAIL C B3-1
SCALE 2X



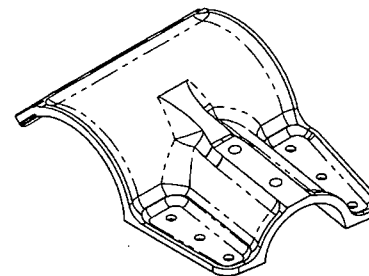
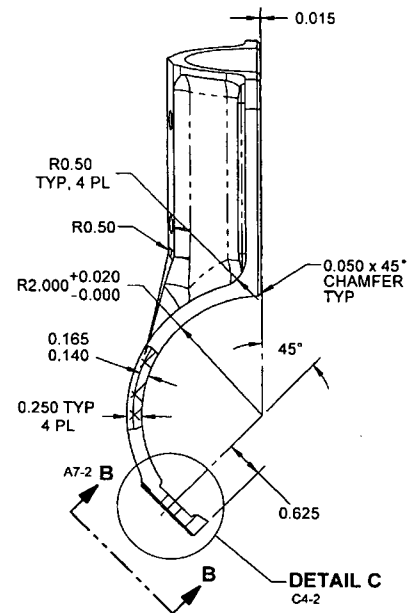
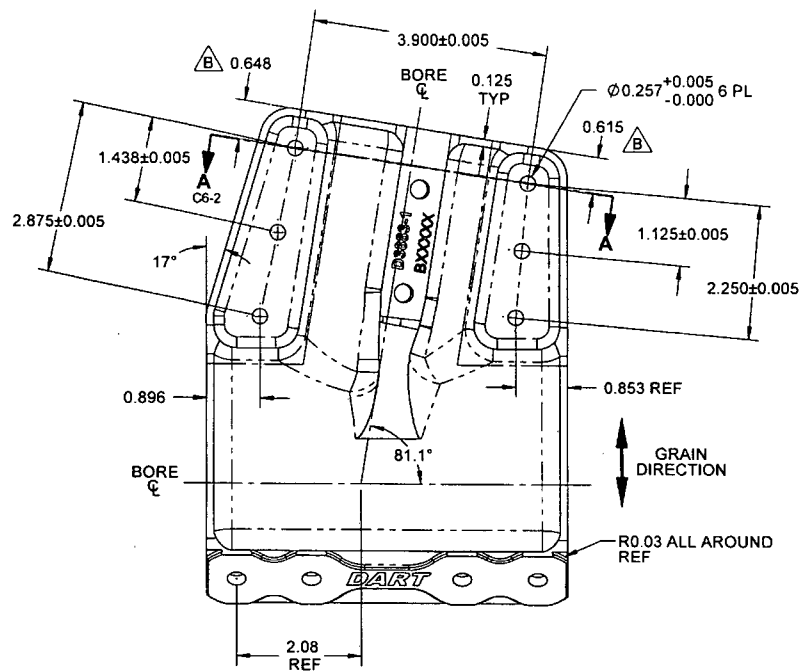
VIEW D-D C7-2

**PRELIMINARY
ISSUE**

PRELIMINARY

DESIGN	RF	DART AEROSPACE USA, INC.	
DRAWN	RF	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		D3883	SHEET 2 OF 2
APPROVED		TITLE	SCALE
DE APPR.		OUTBOARD SADDLE	NTS
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8 7 6 5 4 3 2 1



47826

D3883-1 SADDLE, OUTBOARD LH (SHOWN)
D3883-2 SADDLE, OUTBOARD RH (OPPOSITE)

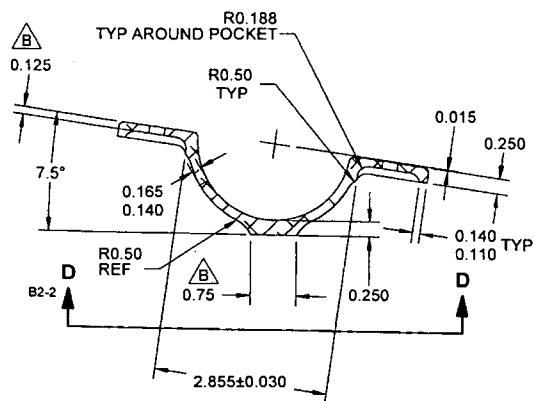
NOTES:

- 1) MATERIAL: 7075-T7351 ALUMINUM PER AMS-QQ-A-250/12, OR QQ-A-250/12 OR ASTM B209 (REF DART SPEC. D6101-015)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 POWDER COAT GLOSS "WHITE" (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: ENGRAVE PART AND BATCH NUMBER IN THIS AREA TO MAX. DEPTH OF 0.010 WITH A MIN. TOOL RAD OF R0.010
- 7) WEIGHT: 1.00 lbs
- 8) ENGRAVE DART LOGO TO MAX DEPTH OF 0.015 WITH MIN RAD 0.250

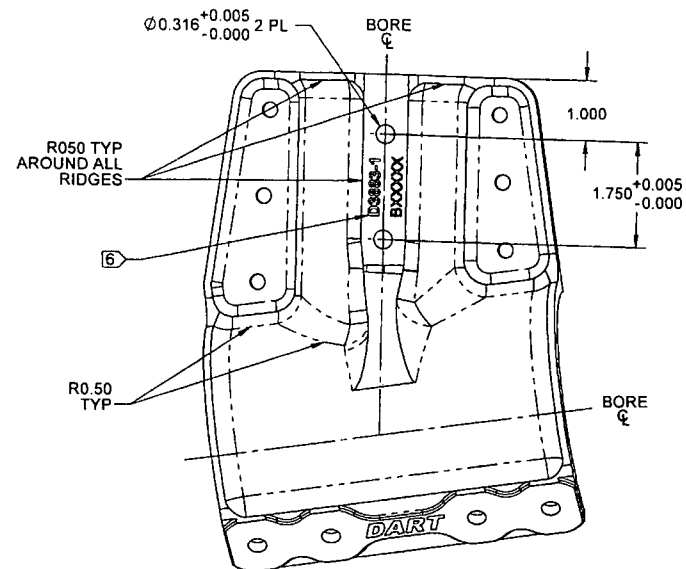
RELEASED
 07/15/11

B	D6101-015 WAS D6102-015. ZN A7-1; ADD 0.648. ZN D7-1; ADD 0.615. ZN D8-1; ADD 0.125. ZN D7-2; ADD 0.060 & R0.031. ZN B5-2; 0.75 WAS 0.728. ZN C7-2	RF	09.06.30
A	NEW ISSUE	RF	09.03.30
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	DART AEROSPACE USA, INC.	
DRAWN	RF	PORT HADLOCK, WA	
CHECKED	RF	DRAWING NO.	REV. B
MFG. APPR.	RF	D3883	SHEET 1 OF 2
APPROVED	RF	TITLE	SCALE
DE APPR.	RF	OUTBOARD SADDLE	NTS
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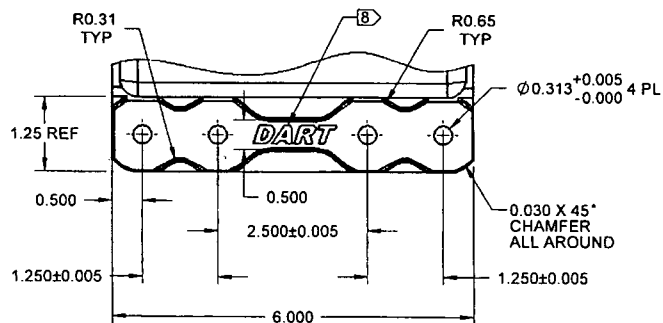
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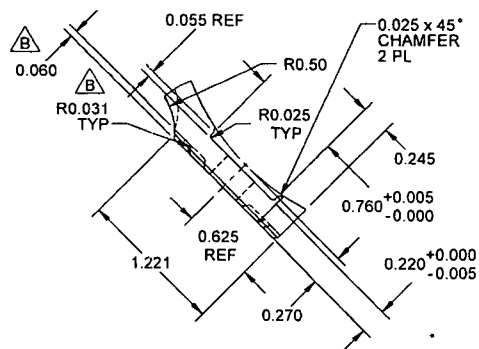
SECTION A-A C7-1



VIEW D-D C7-2



VIEW B-B B4-1
(ROTATED FOR CLARITY)



DETAIL C B3-1
SCALE 2X

47826

RELEASED
6967/15/100

DESIGN	RF	DART AEROSPACE USA, INC.	
DRAWN	RF	PORT HADLOCK, WA	
CHECKED	RF	DRAWING NO. D3883	REV. B
MFG. APPR.		SHEET 2 OF 2	
APPROVED		TITLE	SCALE
DE APPR.		OUTBOARD SADDLE	NTS
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